

arise from the extension of international communication.

At the close of the paper Mr. Scoles communicated some further particulars respecting the buildings. The first remark alluded to the injurious effect of the modern esplanade formed along the sea-shore, which had materially altered the appearance of the amphitheatre, from one of the best points of view shown in one of the drawings. The next note had reference to the excellent preservation of the walls of the amphitheatre, and the remarkably white colour of the stone, of which he had sent specimens for the inspection of the meeting. The four projections for staircases on the exterior of the amphitheatre were more decomposed and discoloured than other parts; and the report on the spot was, that this effect had been produced by fires, which had been made there by the shepherds in former days. The mortar appeared to contain a mixture of very finely pounded brick; and the manner in which the courses of stone had been doweled together was clearly to be seen. Piles had been discovered under several of the ancient buildings of Pola, and it had been supposed that, while the modern walls of the town were built upon the ancient foundations, the latter had been erected upon piles. A great number of statues found at Pola had been removed to Venice. Excavations were still in progress, at the expense of the Austrian Government, which had devoted a small sum annually to that object. Along the middle of the arena of the amphitheatre, the lower parts of six columns were still standing. These remains were 4 feet in height, placed about 10 feet apart; and their intended purpose, whether to support a platform for the arena or not, was doubtful. Whether the whole interior of the amphitheatre was of wood was a disputed question; but Mr. Glennie thought the staircases certainly were formed of that material. Mr. Scoles trusted that the paper on "Roman Provincial Architecture," to which allusion had been made, might be looked to as a prelude to an interesting series of essays on that subject, of which the present account and illustration of Pola should form the commencement.

Mr. Penrose (fellow) stated that his visit to Pola had lasted only a few hours, but he had, however, seen enough to enable him to bear witness to the extreme fidelity and admirable precision of Mr. Glennie's drawings, which Mr. Nelson's paper illustrated. Mr. Nelson had pointed out the peculiarity of the site on which the amphitheatre was built. He believed that it was so constantly the case that the theatres of the Greeks were placed on the side of a hill, that an exception to that rule would be remarkable. He remembered that the amphitheatre of Sutri was so built on a recess in a volcanic hill, which some quarrying had probably increased; and much the same was the case at Corinth, though the latter example was evidently a quarry converted into an amphitheatre. Whether the steps or seats at Pola were of stone or wood was not by any means determined. His own impression on the spot, judging from the exceeding lightness of the piers as compared with those in amphitheatres where there were certainly vaults carrying the steps, was that wooden galleries were used to a great extent. Probably the rustic basement and the lower tier of arches might have had vaults, but he imagined all above was of wood, especially as there was a provision for the insertion of timbers of considerable size. As at Pola, the seats of the amphitheatre at Nismes were divided for the visitors; but, he believed, in the latter case 16 inches instead of 15 were allowed for each individual. Although that limitation of space was so very small, it occurred to him that ten or more adjoining seats might have been appropriated to the head of a family, when the shows were not gladiatorial, might have been accompanied by some of the younger members of his establishment, in which case even fifteen inches might have been an average seat. With reference to the employment of skew arches by the Romans, Mr. Penrose referred to a bridge at Rimini, of large span, which crossed the river at a considerable

angle; but there, as in all other Roman examples which he had examined, such arches were not built on the modern principle; and the joints of the voussoirs did not follow the spiral line. The stones were of sufficiently large size to carry a horizontal joint, and therefore the arch was somewhat imperfect, though quite solid enough for the required purpose. In reply to a question from the chairman, Mr. Penrose further stated that he had not particularly examined the four projections for the staircases to the amphitheatre at Pola, so as to form an opinion whether they were parts of the original work or subsequent additions. He believed the periphery of the amphitheatre was a true ellipse, having taken some measurements with a view to ascertain the fact. Generally speaking, the plan of such structures was a false ellipse, formed from several centres. That of the Coliseum at Rome was a false ellipse, having four centres, which was by far the easiest form for construction, because all the lines of the internal divisions which converged could be at once referred to their known centres; but at Pola much greater nicety appeared to have been observed in order to obtain perfection of form. If it should be found to be really a true ellipse, he should consider that conclusive against the supposition that the internal arrangements were of masonry, on account of the greater difficulty of setting out the masonry to suit a curved figure, the centres of which were not known.

THE METROPOLIS OF THE UNITED STATES.

WASHINGTON, THE SEAT OF GOVERNMENT.*

LETTER-WRITING from the capital has become a trade, and a much abused trade, too, I am sorry to say; yet of all the letters from this city, I scarcely remember one that has given the reader any idea of what Washington really is.

In respect to shape, the territory of Washington is quite irregular; being nearer a pentagon than anything else. The capital stands very nearly in the centre of the area; and from this central point some eight or ten wide and noble avenues and streets radiate in different directions. The avenues are named from the different States. Pennsylvania Avenue is by far the finest, being central, and running the entire length of the city, from East to West. Massachusetts Avenue is parallel with it, and quite as long; and Virginia Avenue is also parallel with it, and nearly as long. The streets, which are numbered 1st, 2nd, 3rd, &c. &c., run North and South, and as nearly as possible at right angles with these extended avenues. Shade trees are set out all along the occupied streets and avenues, which must in turn render these in summer beautiful indeed.

The public buildings are scattered over the immense area which is included within the limits of the city, and at most painfully inconvenient distances from the capital and from each other. Vacant lots of land, common, and unfenced fields of vast extent, are to be met with in every direction. So ample indeed are the pastures of the city, that one has but to turn his cows and goats into the streets, and the animals find their own grazing ground at once. Cows, goats, and swine are to be met with in every direction. But with all this amplitude of territory the dwelling-houses of the city are quite contracted in their accommodations. They are generally placed directly on the streets, without so much as a few feet between them and the side walk, and with but a miserable little yard in the rear. And then, the style in which their houses are built, is generally—almost universally—deficient in all the attributes of taste, and affords very few conveniences. They are generally small, inferior little brick and wooden houses, with basement stories, but no cellars, and mean-looking wooden steps and balustrades leading to the front doors. And most of these houses, so far as I have seen or learned, are internally as contracted and inferior in their accommodations as they are cheap and mean in their

exterior appearance. There are, of course, exceptions to this sort of houses, for the spirit of improvement has even reached Washington; but the general impression made on a New Englander by the dwelling-houses of this city is that of inferiority—almost meanness. Why—cabinet ministers here live in houses which master mechanics in Boston would think totally unfit for their families, and which a journeyman mechanic even would regard as only passable.

The hotels of the city are in keeping with the dwelling-houses. There is not one elegant, imposing hotel structure in all Washington. They all have a dingy, dirty, second-rate look. This strikes a stranger the more forcibly, from the fact that so very large a portion of the dwellers in Washington are occupants of hotels. For this reason it might reasonably be expected that no city in the Union should furnish so many good hotels as Washington. It is, however, far otherwise. The best here would scarcely rank higher than second-rate in New York and Boston.

The public buildings are generally imposing structures; but, with perhaps two exceptions, they are built of miserable materials. The General Post Office building furnishes one of these exceptions. This is not only a finely proportioned building, and an elegant piece of architecture, but it is also built of beautiful and durable material—nice white marble. The new wings of the Patent Office are to be of white marble also, but the marble is of a soft and porous nature, which is scarcely suitable for such a structure. The other exception to which I have alluded is furnished by the Smithsonian Institute. The material of this structure is a solid and beautiful free stone; and the whole style of the building is elegant and ornamental. It is yet unfinished, even externally, and will not be completed for some time; but what is finished shows to fine advantage externally, and the two western halls, which are completed internally, are extremely tasteful and beautiful rooms. The style of architecture adopted here is a sort of composite of the Norman and Gothic. When the entire building shall be completed, and the spacious grounds around shall be laid out and ornamented, agreeably to the designs already settled on, the Smithsonian Institute will be one of the most beautiful establishments in Washington, if not in the United States.

Washington is well supplied with all the essentials of life. The water is abundant and excellent. The market for meats, vegetables, and fruits is very good; and generally the prices are low.

FOREIGN ARCHITECTURAL AND ART INTELLIGENCE.

The "Bourdon" Bell of Notre Dame Cathedral, Paris.—This gigantic bell, whose knells have marked many a world-event in modern history, has been mute for some time past, as the belfry was in such a condition, that eight men were scarcely able to swing the immense brass into tone. In consequence of the general restoration, the architects, Messrs. Delavue and Viollet-Leduc, have devised an apparatus of pulleys, by which six persons will be henceforth capable of the same performance. The "Bourdon" was first cast at the end of the 14th century, at the cost of Jean Montagu, brother of the then bishop; its weight was then only 15,000 lbs. In 1682 it was re-cast by Florentin Leguay, and augmented to its present weight of 13,000 kilogrammes. Louis XIV. was present at its baptism (!), and gave it the name of Emmanuel. It escaped the general fusion of bells during the revolution, but was taken down in the year 1794, and not elevated again until Easter, 1802, at the celebration of the Concordat. The French consider it the largest bell in Christendom, as it is certainly the most sonorous of those vibrating musical instruments.

Civic Festivals and Civic Benevolence in France.—Public festivals during Lent have been revived of late in France—tournaments, cavalcades and public masquerades, where, as a matter of course, art cannot, by any means, be put aside and neglected. In Cambrai, the

* Condensed from the *Boston Traveller*.